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ABSTRACT

TECHNO-POLITICAL SPACE COOPERATION:
A LONGITUDINAL ANALYSIS OF NASA'S BILATERAL AND MULTILATERAL
AGREEMENTS

John J. Hudiburg, Ph.D.

National Aeronautics and Space Administration
and Vanderbilt University

Kennedy Space Center, FL 32899
321-861-8446 voice
321-867-8007 fax
john.j.hudiburg@nasa.gov

NASA's international programs are both numerous and successful, with over two thousand international agreements forming a foundation of U.S. government cooperation that involved over half the United Nation's membership. Previous research, by the author, into these agreements has identified five variables underlying NASA's international cooperation efforts and these variables form a framework for explaining international cooperation behavior on a macro-level. This paper builds upon that research to effectively explain lower-level patterns of cooperation in NASA's experience. Two approaches for analyzing the space agency's history are used: aggregation of all agreements and a cluster (disaggregated) analysis of four key segments.

While researchers of NASA's international cooperation often considered individual cases first, and then generalize to macro-level explanations. This study, in contrast, begins by considering all agreements together in order to explain as much as possible at the macro level before proceeding to lower tier explanations. These lower tier assessments are important to understanding regional and political influences on bilateral and multilateral cooperation. In order to accomplish this lower-tier analysis, the 2000 agreements are disaggregated into logical groupings enabling an analysis of important questions and clearer focus on key patterns concerning developing states, such as the role of international institutions or privatization on international cooperation in space technology.

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NASA's numerous and storied international projects form a foundation of space initiatives involving significant cooperation with developing states. Five previously identified variables underlie NASA's international cooperation efforts. These variables form a framework for explaining international cooperation behavior on a macro-level. To effectively explain lower-level patterns of cooperation, a cluster analysis of four key segments is utilized. In contrast to prior research projects focusing principally on case studies, this paper begins with a macro-level consideration of the more than two thousand agreements in NASA's International Agreement Database (IAD) before proceeding to lower tier explanations. These lower-tier explanations provide insight into the regional and political influences on bilateral and multilateral cooperation and answer key questions concerning developing states.

Developing states seeking to increase their indigenous space industry can leverage NASA's history of international space cooperation for important lessons and successful models of space cooperation. These historical cases of NASA cooperation include a large variety of both developed and developing space partners. International space cooperation patterns in NASA's past suggest that international-institutions, costs-borne, and technology-readiness strongly influence both initial agreement formation and follow-on agreement levels.